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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Air Force **DATE:** February 2011

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>				PE 0303150F: <i>WWWCCCS/GLOBAL COMMAND & CONTROL SYSTEM</i>							
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	2.974	3.055	3.854	-	3.854	4.308	3.813	3.561	3.283	Continuing	Continuing
674667: <i>Global Command and Control System - AF</i>	2.974	3.055	3.854	-	3.854	4.308	3.813	3.561	3.283	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Global Command and Control System (GCCS) is the Joint Command and Control (C2) System of Record and the designated C2 migration system for the DOD. It is an integrated Command, Control, Communications, Computer, and Intelligence (C4I) system capable of supporting all echelons of the US military command structure. GCCS solves C4I interoperability problems between Service components by establishing a Common Core Operating Environment supporting net-centric objectives. The GCCS-Air Force program provides C2, intelligence, surveillance, reconnaissance (ISR), Cyber, and operational information for the Joint Force Air Component Commander (JFACC) and the Air and Space Operations Center-Weapon System (AOC-WS) for planning and execution, air space deconfliction, targeting, weaponeering and many other applications supporting air operational command and control, and fully supports the Aerospace Expeditionary Force (AEF) concept. The Air Force is responsible for integration of Air Force unique applications with the Common Core Operating Environment. Integration efforts are directed towards future aerospace C2 concepts supporting requirements for the AOC, including ISR, and intended to automate operational systems with an objective of providing the right people with the right information at the right time while reducing the overall footprint of the system. As they migrate to the GCCS Joint (GCCS-J) core environment, GCCS-AF will integrate applications into the WINx environment satisfying warfighter requirements for the Common Operational Picture (COP), Joint Warning and Reporting Network (JWARN), Joint Targeting Toolbox (JTT), Logistics Feasibility Analysis Capability (LOGFAC), Deliberate Crisis Action Planning and Execution Segment (DCAPES) capabilities and other information assurance mechanisms. Activities also include studies and analysis to support both current program planning and execution and future program planning. The GCCS-AF program is actively supporting planning for transition of functionality to DOD's emerging next generation joint C2 enabler. The GCCS-AF funding will be used to implement evolving Joint and Air Force GCCS functional capability as well as facilitate transition, development and delivery of functionality to DOD's next generation joint C2 enabler. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0303150F: <i>WWMCCS/GLOBAL COMMAND & CONTROL SYSTEM</i>
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B. Program Change Summary (\$ in Millions)	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>
Previous President's Budget	6.349	3.055	3.100	-	3.100
Current President's Budget	2.974	3.055	3.854	-	3.854
Total Adjustments	-3.375	-	0.754	-	0.754
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-0.083	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	-3.200	-			
• SBIR/STTR Transfer	-0.092	-			
• Other Adjustments	-	-	0.754	-	0.754

Change Summary Explanation

In FY 2010, \$3.2M of 4667 Global Command and Control System - Air Force effort was transferred to PE 0604740F, Integrated Command and Control Applications (IC2A), 2524 Reuse and Component Support in accordance with Congressional intent.

Base FY 20112 has additional funding to modify GCCS to consume authoritative force structure from Global Force Management - Data Initiative Organization Servers (GFM-DI Org Servers), linking the identifiers to or replacing current identifiers and, as applicable, exposing the data in a net-centric fashion.

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force									DATE: February 2011		
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development				R-1 ITEM NOMENCLATURE PE 0303150F: WWMCCS/GLOBAL COMMAND & CONTROL SYSTEM				PROJECT 674667: Global Command and Control System - AF			
COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
674667: Global Command and Control System - AF	2.974	3.055	3.854	-	3.854	4.308	3.813	3.561	3.283	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification

The Global Command and Control System (GCCS) is the Joint Command and Control (C2) System of Record and the designated C2 migration system for the DOD. It is an integrated Command, Control, Communications, Computer, and Intelligence (C4I) system capable of supporting all echelons of the US military command structure. GCCS solves C4I interoperability problems between Service components by establishing a Common Core Operating Environment supporting net-centric objectives. The GCCS-Air Force program provides C2, intelligence, surveillance, reconnaissance (ISR), Cyber, and operational information for the Joint Force Air Component Commander (JFACC) and the Air and Space Operations Center-Weapon System (AOC-WS) for planning and execution, air space deconfliction, targeting, weaponeering and many other applications supporting air operational command and control, and fully supports the Aerospace Expeditionary Force (AEF) concept. The Air Force is responsible for integration of Air Force unique applications with the Common Core Operating Environment. Integration efforts are directed towards future aerospace C2 concepts supporting requirements for the AOC, including ISR, and intended to automate operational systems with an objective of providing the right people with the right information at the right time while reducing the overall footprint of the system. As they migrate to the GCCS Joint (GCCS-J) core environment, GCCS-AF will integrate applications into the WINx environment satisfying warfighter requirements for the Common Operational Picture (COP), Joint Warning and Reporting Network (JWARN), Joint Targeting Toolbox (JTT), Logistics Feasibility Analysis Capability (LOGFAC), Deliberate Crisis Action Planning and Execution Segment (DCAPES) capabilities and other information assurance mechanisms. Activities also include studies and analysis to support both current program planning and execution and future program planning. The GCCS-AF program is actively supporting planning for transition of functionality to DOD's emerging next generation joint C2 enabler. The GCCS-AF funding will be used to implement evolving Joint and Air Force GCCS functional capability as well as facilitate transition, development and delivery of functionality to DOD's next generation joint C2 enabler. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: Synchronization, Integration, Test, and Planning	2.974	3.055	3.618	-	3.618
Description: This effort consists of: synchronization, integration and testing of current/upgraded capabilities; operational baseline problem analysis and technical solution implementation; and systems engineering for infrastructure migration to the next generation joint C2 architecture.					
FY 2010 Accomplishments:					

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force			DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development	R-1 ITEM NOMENCLATURE PE 0303150F: WWWCCS/GLOBAL COMMAND & CONTROL SYSTEM	PROJECT 674667: Global Command and Control System - AF				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Continued integration and test of Air Force capabilities into GCCS baseline configurations. Conducted GCCS-AF 4.1.x operational baseline problem analysis and technical solution implementation. Conducted C2 interoperability and performance studies in support of further consolidation of GCCS Global Release (GR) and Strategic Server Enclave (SSE) configurations to ensure synchronization and interoperability between AF and joint GCCS components. Assessed and mitigated risks associated with transforming enterprise infrastructure components necessary for structured migration of GCCS baseline to the DOD's emerging joint C2 architecture. FY 2011 Plans: Continued integration and test of Air Force capabilities into GCCS baseline configurations. Conducted GCCS-AF 4.2.x operational baseline problem analysis and technical solution implementation. Conducted C2 interoperability and performance studies in support of further consolidation of GCCS Global Release (GR) and Strategic Server Enclave (SSE) configurations to ensure synchronization and interoperability between AF and joint GCCS components. Continued systems engineering support to migration objectives. Conducted studies and analysis to develop stronger configuration control and security protection strategies. Strengthened configuration management, performance engineering and security protection strategies to facilitate migration to the DOD's emerging joint C2 architecture. FY 2012 Base Plans: Continue systems engineering support to GCCS synchronization and migration objectives. Conduct GCCS-AF 4.x/JC2 operational baseline problem analysis and technical solution implementation. Conduct studies and analysis to develop stronger configuration control and security protection strategies. Strengthen configuration management, performance engineering and security protection strategies to facilitate migration to the DOD's emerging joint C2 architecture. FY 2012 OCO Plans:						
Title: GCCS support of Global Force Management Description: This effort is to modify GCCS to consume authoritative force structure from GFM DI Org Servers, linking the identifiers to or replacing current identifiers and, as applicable, exposing the data in a net-centric fashion. FY 2010 Accomplishments: FY 2011 Plans:		-	-	0.236	-	0.236

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Air Force							DATE: February 2011				
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development			R-1 ITEM NOMENCLATURE PE 0303150F: WWWCCS/GLOBAL COMMAND & CONTROL SYSTEM			PROJECT 674667: Global Command and Control System - AF					
B. Accomplishments/Planned Programs (\$ in Millions)						FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	
FY 2012 Base Plans: This effort is to modify GCCS to consume authoritative force structure from GFM DI Org Servers, linking the identifiers to or replacing current identifiers and, as applicable, exposing the data in a net-centric fashion.											
FY 2012 OCO Plans:											
Accomplishments/Planned Programs Subtotals						2.974	3.055	3.854	-	3.854	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• PE 0303150F: Air Force Global Command and Control System, OPAF	9.881	9.210	13.310	0.000	13.310	15.219	12.879	11.479	13.160	Continuing	Continuing
D. Acquisition Strategy											
GCCS-AF is developed and fielded using a spiral acquisition approach, synchronized with Common Operating Environment (COE) and compliant with the GCCS-Joint (GCCS-J) baseline. All deployment of GCCS-AF capabilities are synchronized with the GCCS-J program fielding schedule, which is led by DISA. The GCCS-AF program is actively supporting DOD planning for transition of functionality to DOD's emerging next generation joint C2 enabler.											
E. Performance Metrics											
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Air Force											DATE: February 2011			
APPROPRIATION/BUDGET ACTIVITY 3600: Research, Development, Test & Evaluation, Air Force BA 7: Operational Systems Development					R-1 ITEM NOMENCLATURE PE 0303150F: WWMCCS/GLOBAL COMMAND & CONTROL SYSTEM				PROJECT 674667: Global Command and Control System - AF					
Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
WINxB 4.1. n	SS/FFP	Northrop Gruman ITS:Herndon, VA	2.000	-		-		-		-	Continuing	Continuing	0.000	
WINxB 4.2. n	C/CPAF	TBD:TBD,	-	1.863	Nov 2010	3.000	Nov 2011	-		3.000	Continuing	Continuing	0.000	
Subtotal			2.000	1.863		3.000		-		3.000			0.000	
Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Systems Engineering Support	C/CPAF	Mitre / ESC:Hanscom AFB, MA	0.610	0.660	Nov 2010	0.636	Nov 2011	-		0.636	Continuing	Continuing	0.000	
Miscellaneous	Various	Various:Various,	0.134	0.200		0.118		-		0.118	Continuing	Continuing	0.000	
Subtotal			0.744	0.860		0.754		-		0.754			0.000	
Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Test and Accreditation	MIPR	Various:Various,	0.230	0.332	Nov 2010	0.100	Nov 2011	-		0.100	Continuing	Continuing	0.000	
Subtotal			0.230	0.332		0.100		-		0.100			0.000	
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Subtotal			-	-		-		-		-	0.000	0.000	0.000	
			Total Prior Years Cost	FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			2.974	3.055		3.854		-		3.854			0.000	

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	Total Prior Years Cost	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	Cost To Complete	Total Cost	Target Value of Contract
Remarks								

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Air Force		DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0303150F: <i>WWMCCS/GLOBAL COMMAND & CONTROL SYSTEM</i>	PROJECT 674667: <i>Global Command and Control System - AF</i>

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Air Force			DATE: February 2011
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 7: <i>Operational Systems Development</i>	R-1 ITEM NOMENCLATURE PE 0303150F: <i>WWWCCCS/GLOBAL COMMAND & CONTROL SYSTEM</i>	PROJECT 674667: <i>Global Command and Control System - AF</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GCCS-AF 4.2.0.3-6: GR-C AglClient: / Adptv Plng	1	2010	1	2013
GCCS-AF 4.2.0.7: GR-C Teleclient & SA/I3 Upgrades	4	2010	3	2013
GCCS-AF 4.2.1: GR-C AF Windows Env. Upgrades	2	2011	4	2015
GCCS-AF GR-C / JC2 - Block I	4	2013	4	2016
GCC-AF 4.2.0: SSE SW/HW Infrast.Upgrades	1	2010	4	2012
GCCS-AF 4.2.1: SSE Loose Coupling / LOGFAC	1	2010	4	2012
GCCS-AF 4.2.2: SSE LooseCoupling II / SW Upgrades	2	2010	3	2013
GCCS-AF 4.2.3: SSE Loose Coupling III / SW Upgrades	3	2010	1	2016
DECAPES - Increment b / SW Upgrades	1	2012	4	2016

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